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on September 4, 2001
Date of Deposit

Carolyn Roberts
Name of applicant, assignee
or Registered Representative
Carolyn Roberts
Signature

September 4, 2001
Date of Signature

Patent
Case No. P-191

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Clark M. Whitehead et al.)	
Serial No.:	09/938,160)	Examiner: Not Yet Assigned
Filed:	August 23, 2001)	Art Unit: Not Yet Assigned
For:	METHODS FOR TREATMENT OF SCLERODERMA)	

INFORMATION DISCLOSURE STATEMENT

Honorable Commissioner of
Patents and Trademarks
Washington, D.C. 20231

Sir:

Pursuant to the obligation under 37 C.F.R. § 1.56 and in conformance with 37 C.F.R. §§ 1.97-1.99, Applicants hereby submit the following documents for consideration by the Examiner. A copy of each has been enclosed along with two copies of the PTO-1449 form.

U.S. Patents

<u>Patent No.</u>	<u>Date</u>	<u>Name</u>
3,031,450	April 24, 1962	Fischer et al.
3,161,654	December 15, 1964	Shen
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3,322,755	May 30, 1967	Roch et al.
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Other Art - Articles

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REMARKS

Applicants request that these references be made of record in this case, and that the Examiner indicate his review of these references by initialing and returning one copy of the PTO form enclosed.

This Information Disclosure Statement is being submitted before the mailing of the first Office Action on the merits pursuant to 37 C.F.R. § 1.97.

Respectfully submitted,



Robert W. Stevenson
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Attorney for Applicants

Dated: September 4, 2001
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FORM PTO-1449	SERIAL NO. 09/938,160	CASE NO. P-191
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (use several sheets if necessary)	FILING DATE AUGUST 23, 2001	GROUP ART UNIT NOT YET ASSIGNED
APPLICANT(S): WHITEHEAD ET AL.		

REFERENCE DESIGNATION

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS/ SUBCLASS	FILING DATE
	A1	3,031,450	4/24/62	Fischer et al.		
	A2	3,161,654	12/15/64	Shen		
	A3	3,312,730	4/4/67	Winter et al.		
	A4	3,322,755	5/30/67	Roch et al.		
	A5	3,325,358	6/13/67	Winter et al.		
	A6	3,532,752	10/6/70	Shen		
	A7	3,642,785	2/15/72	Shen et al.		
	A8	3,647,858	3/7/72	Hinkley et al.		
	A9	3,654,349	4/4/72	Shen et al.		
	A10	3,692,651	9/19/72	Slettinger et al.		
	A11	3,692,825	9/19/72	Conn		
	A12	3,737,455	6/5/73	Shen et al.		
	A13	3,851,063	11/26/74	Shen et al.		

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS/ SUBCLASS	TRANSLATION YES NO
	A14	EP 0 293 063 B1	3/18/92	EPO		
	A15	EP 0 347 146 B1	9/1/93	EPO		
	A16	EP 0 349 239 A2	1/3/90	EPO		
	A17	EP 0 352 960 B1	10/26/94	EPO		
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EXAMINER INITIAL	OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)	
	A19	Ahmad F. et al., IL-3 ad IL-4 Activate Cyclic Nucleotide Phosphodiesterases 3 (PDE3) and 4 (PDE4) by Different Mechanisms in FDCP2 Myeloid Cells, J. Immunology Vol. 162, Part 8, pp. 4864-4875 (Apr 15 1999).
	A20	Boven LA et al., Macrophage inflammatory protein-1 alpha (MIP-1alpha), MIP-1beta, and RANTES mRNA semiquantification and protein expression in active demyelinating multiple sclerosis (MS) lesions, Clin. Exp. Immunol. 2000 Nov.; 122(2): 257-63 (Abstract Only).
	A21	Cooper N. et al., A comparison of the inhibitory activity of PDE4 inhibitors on leukocyte PDE4 activity in vitro and eosinophil trafficking in vivo, British Journal of Pharmacology (1999) 126, pp. 1863-1871.
	A22	Czirjak L. et al., Investigation of the alveolar macrophages and T lymphocytes in 15 patients with systemic sclerosis, Clin Rheumatology 1999; 18(5), pp. 357-363 (Abstract Only).
	A23	Danahay H. et al., PDE4 inhibition and a corticosteroid in chronically antigen exposed conscious guinea-pigs, Clinical and Experimental Allergy, 1998, Vol. 28, pp. 513-522.
	A24	Duggan, D.E. et al., Identification of the Biologically Active Form of Sulindac, J. Pharm. & Exper. Therap., Vol. 201, No. 1, pp.8-13 (1977).

EXAMINER	DATE CONSIDERED
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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	A25	3,860,636	11/14/75	Shen et al.		
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FORM PTO-1449

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SERIAL NO.

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	A49	5,602,171	2/11/97	Tang et al.		
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	A51	5,614,627	3/25/97	Takase et al.		
	A52	5,708,022	1/13/98	Bastos et al.		
	A53	5,776,752	7/7/98	Beavo et al.		
	A54	5,789,553	8/4/98	Beavo et al.		
	A55	5,798,374	8/25/98	Tang et al.		
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	A57	5,852,035	12/22/98	Pamukcu et al.		
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	A69	Hollander AP et al., Expression of hypoxia-inducible factor 1 alpha by macrophages in the rheumatoid synovium: implications for targeting of therapeutic genes to the inflamed joint, Arthritis Rheum. 2001 Jul; 44(7): 1540-4 (Abstract Only).
	A70	Imahashi K. et al., Type IV Phosphodiesterase Inhibitor Suppresses Insulin-Dependent Myocardial Glucose Uptake, Clin Exp Pharmacol Physiol 2001 Apr;28(4), pp. 290-291 (Abstract Only)
	A71	Ishikawa O. et al., Macrophage infiltration in the skin of patients with systemic sclerosis, J. Rheumatology 1992 Aug; 19(8), pp. 1202-1206 (Abstract Only).
	A72	Kapur S. et al., Expression of Nitric Oxide Synthase in Skeletal Muscle, Diabetes, Vol. 46, Nov. 1997, pp. 1691-1700.

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LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT (use several sheets if necessary)	FILING DATE AUGUST 23, 2001	GROUP ART UNIT NOT YET ASSIGNED
APPLICANT(S): WHITEHEAD ET AL.		

REFERENCE DESIGNATION

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS/ SUBCLASS	FILING DATE
	A73	5,885,834	3/23/99	Epstein		
	A74	5,902,827	5/11/99	Pamukcu et al.		
	A75	5,922,595	7/13/99	Fisher et al.		
	A76	5,942,520	8/24/99	Pamukcu et al.		
	A77	5,948,911	9/7/99	Pamukcu et al.		
	A78	5,958,982	9/28/99	Pamukcu et al.		
	A79	5,990,117	11/23/99	Pamukcu et al.		
	A80	5,998,463	12/7/99	Hulin et al.		
	A81	6,008,215	12/28/99	Flockerzi		
	A82	6,015,677	1/18/00	Beavo et al.		
	A83	6,034,099	3/7/00	Pamukcu et al.		
	A84	6,037,345	3/14/00	Pamukcu et al.		
	A85	6,046,199	4/4/00	Pamukcu et al.		

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS/ SUBCLASS	TRANSLATION YES NO
	A86	SHO 61-106521	5/24/86	Japan		
	A87	WO 01/04099 A1	1/18/01	PCT		
	A88	WO 00/12501	3/9/00	PCT	US 6,436,952	
	A89	WO 00/26201	5/11/00	PCT	US 6,376,493	
	A90	WO 00/23091	4/27/00	PCT		

EXAMINER INITIAL	OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)
A91	Kelly J. et al., Characterization of phosphodiesterase 4 in guinea-pig macrophages: multiple activities, association states and sensitivity to selective inhibitors, British Journal of Pharmacology (1998) 124, PP. 129-140.
A92	Kelly J. et al., Phosphodiesterase 4 in macrophages: relationship between cAMP accumulation, suppression of cAMP hydrolysis and inhibition of [³ H]R-(+)-rolipram binding by selective inhibitors, Biochem. J. (1996) 318, pp. 425-436.
A93	Kumar A. et al., Analgesic and anti-inflammatory effects of phosphodiesterase inhibitors, Indian J Exp Biol 2000 Jan;38(1), pp. 26-30 (Abstract Only)
A94	Lee MS et al., A comparative immunohistochemical study of lichen planus and discoid lupus erythematosus, Australas J. Dermatol. 1996 Nov.; 37(4): 188-92 (Abstract Only).
A95	McPherson M.A. et al., A cyclic nucleotide PDE5 inhibitor corrects defective mucin secretion in submandibular cells containing antibody directed against the cystic fibrosis transmembrane conductance regulator protein, FEBS Letters 464 (1999), pp. 48-52.
A96	Mery P.F. et al., Erythro-9-(2-hydroxy-3-nonyl)adenine inhibits cyclic GMP-stimulated phosphodiesterase in isolated cardiac myocytes, Mol. Pharmacology 1995 Jul;48(1), pp. 121-130 (Abstract Only)

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	A97	6,046,206	4/4/00	Pamukcu et al.		
	A98	6,046,216	4/4/00	Piazza et al.		
	A99	6,060,477	5/9/00	Piazza et al.		
	A100	6,066,634	5/23/00	Sperl et al.		
	A101	6,069,240	5/30/00	Wigler et al.		
	A102	6,071,934	6/6/00	Sperl et al.		
	A103	6,077,842	6/20/00	Pamukcu et al.		
	A104	6,080,540	6/27/00	Wigler et al.		
	A105	6,080,742	6/27/00	Germann et al.		
	A106	6,080,772	6/27/00	Tang et al.		
	A107	6,100,025	8/8/00	Wigler et al.		
	A108	6,107,295	8/22/00	Rochus et al.		
	A109	6,124,303	9/26/00	Pamukcu et al.		

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS/ SUBCLASS	TRANSLATION YES NO
	A110	WO 00/26208	5/11/00	PCT		
	A111	WO 00/27861	5/18/00	PCT		
	A112	WO 00/42017	7/20/00	PCT		
	A113	WO 00/42018	7/20/00	PCT		
	A114	WO 00/42019	7/20/00	PCT		

EXAMINER INITIAL	OTHER ART (Including Author, Title, Date, Pertinent Pages; etc.)	
	A115	Méry, Pierre-François et al., EHNA as an Inhibitor of PDE2: A Pharmacological and Biochemical Study in Cardiac Myocytes, Phosphodiesterase Inhibitors (1996), pp. 81-88.
	A116	Michie, A.M. et al., Rapid regulation of PDE-2 and PDE-4 cyclic AMP phosphodiesterase activity following ligation of the T cell antigen receptor on thymocytes: analysis using the selective inhibitors erythro-9-(2-hydroxy-3-nonyl)-adenine (EHNA) and rolipram, Cell Signal 1996 Feb;8(2), pp. 97-110.
	A117	Niebauer J. et al., Local L-Arginine Delivery After Balloon Angioplasty Reduces Monocyte Binding and Induces Apoptosis, Circulation 1999;100, pp. 1830-1835.
	A118	Odoux C. et al., Endothelin-1 secretion by alveolar macrophages in systemic sclerosis, Am. J. Respir. Crit. Care Med. 1997 Nov;156(5), pp. 1429-1435 (Abstract Only).
	A119	Ostensen M. et al., Nonsteroidal anti-inflammatory drugs in systemic lupus erythematosus, Lupus (2001) 10, pp. 135-139.
	A120	Piazza G.A. et al., Antineoplastic Drugs Sulindac Sulfide and Sulfone Inhibit Cell Growth by Inducing Apoptosis, Cancer Research 55, Jul 15 1995, pp. 3110-3116.

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	A121	6,133,271	10/17/00	Pamukcu et al.		
	A122	6,143,746	11/7/00	Daugan et al.		
	A123	6,143,759	11/7/00	Flockerzi		
	A124	6,143,765	11/7/00	Tang et al.		
	A125	6,143,777	11/7/00	Jonas et al.		
	A126	6,169,090	1/2/01	Dyke et al.		
	A127	6,174,884	1/16/01	Haning et al.		
	A128	6,187,779	2/13/01	Pamukcu et al.		
	A129	6,200,771	3/13/01	Liu et al.		
	A130	6,200,980	3/13/01	Piazza et al.		
	A131	6,207,666	3/27/01	Piazza et al.		
	A132	6,211,177	4/3/01	Sperl et al.		
	A133	6,211,220	4/3/01	Pamukcu et al.		

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS/ SUBCLASS	TRANSLATION YES NO
	A134	WO 00/42034	7/20/00	PCT		
	A135	WO 00/59890	10/12/00	PCT		
	A136	WO 00/64424	11/2/00	PCT		
	A137	WO 99/65880	11/23/99	PCT		
	A138	WO 98/19679A1	5/14/98	PCT (Claims Only)		

EXAMINER INITIAL	OTHER ART (Including Author, Title, Date, Pertinent Pages, etc.)	
	A139	Reis E. et al., Sulindac inhibits neointimal formation after arterial injury in wild-type and apolipoprotein E-deficient mice, PNAS 97(23): pp. 12764-12769.
	A140	Rice P.L. et al., Inhibition of extracellular signal-regulated kinase 1/2 phosphorylation and induction of apoptosis by sulindac metabolites, Cancer Research 2001, Feb 15;61(4), pp. 1541-1547 (Abstract Only).
	A141	Soh, Jae-Won et al., Cyclic GMP Mediates Apoptosis Induced by Sulindac Derivatives via Activation of c-Jun NH ₂ -Terminal Kinase 1, Clinical Cancer Research Vol. 6, pp. 4136-4141, October 2000.
	A142	Soh, Jae-Won et al., Protein Kinase G Activates the JNK1 Pathway via Phosphorylation of MEKK1, The Journal of Biological Chemistry, Vol. 276, No. 19, pp. 16406-16410 (2001).
	A143	Thompson, W.J. et al., Exisulind Induction of Apoptosis Involves Guanosine 3',5'-Cyclic Monophosphate Phosphodiesterase Inhibition, Protein Kinase G Activation, and Attenuated β -Catenin, Cancer Research 60, pp. 3338-3342, July 1, 2000.
	A144	Tien, Xiao-Ying, et al., Activation of the Cystic Fibrosis Transmembrane Conductance Regulator by cGMP in the Human Colonic Cancer Cell Line, Caco-2, The Journal of Biological Chemistry, Vol. 269, No. 1, pp. 51-54 (1994).

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	A145	6,232,312	5/15/01	Pamukcu et al.		
	A146	6,235,742	5/22/01	Bell et al.		
	A147	6,235,776	5/22/01	Pamukcu et al.		
	A148	6,235,782	5/22/01	Pamukcu et al.		
	A149	6,239,136	5/29/01	Pamukcu et al.		
	A150	6,251,904	6/26/01	Bunnage et al.		
	A151	6,255,303	7/3/01	Sterk et al.		
	A152	6,255,456	7/3/01	Fisher et al.		
	A153	6,258,833	7/10/01	Martins et al.		
	A154	6,268,372	7/31/01	Pamukcu et al.		

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS/ SUBCLASS	TRANSLATION YES NO
	A155	WO 98/17668	4/30/98	PCT	US 6,130,223	
	A156	WO 98/14448	4/9/98	PCT	US 6,265,577	
	A157	WO 98/06722	2/19/98	PCT	US 6,110,920	
	A158	WO 97/24334	7/10/97	PCT	US 6,166,219	
	A159	WO 97/03985	2/6/97	PCT		

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	A160	Tsukahara T et al., Cytophagic histiocytic panniculitis in systemic lupus erythematosus, <i>Hiroshima J. Med. Sci.</i> , 1995 Mar; 44(1): 13-6 (Abstract Only).
	A161	Waddel W. R. et al., Sulindac for Polyposis of the Colon, <i>The American Journal of Surgery</i> , Vol. 157, Jan. 1989, pp. 175-179.
	A162	Waddel W. R. et al., Sulindac for Polyposis of the Colon, <i>Journal of Surgical Oncology</i> , 24: pp. 83-87 (1983).
	A163	Weyand CM and Goronzy JJ, HLA polymorphisms and T cells in rheumatoid arthritis, <i>Int. Rev. Immunol.</i> 1999; 19(1-2):37-39 (Abstract Only).
	A164	Wilder R.L. et al., Hormonal regulation of tumor necrosis factor-alpha, interleukin-12 and interleukin-10 production by activated macrophages. A disease-modifying mechanism in rheumatoid arthritis and systemic lupus erythematosus?, <i>Ann. NY Acad. Sci</i> 1999 June 22;876, pp. 14-31 (Abstract Only).

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						YES	NO
	A165	WO 97/03675	2/6/97	PCT			
	A166	WO 94/29277	11/22/94	PCT			
	A167	WO 93/07149	4/15/93	PCT			

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